CLAIMS

I claim:

1.   A method for accessing hardware I/O control
5   blocks, which are stored in an hardware I/O control
block array, by a parallel SCSI host adapter, said
method comprising:
addressing one page in a plurality of pages
of said hardware I/O control block array for said
10   parallel SCSI host adapter using a first portion
of a hardware I/O control block array pointer in
said parallel SCSI host adapter wherein said one
page includes a plurality of storage sites for
hardware I/O control blocks; and
15   addressing a hardware I/O control block
stored in said one page using a second portion of
said hardware I/O control block array pointer in
said parallel SCSI host adapter.

20   2.   The method of Claim 1 wherein said addressing
a hardware I/O control block stored in said one page
further comprises:
using a tag supplied by a reconnecting SCSI
target as said second portion.
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3.   The method of Claim 1 further comprising:
storing a reconnecting target address by said
parallel SCSI host adapter.

30   4.   The method of Claim 3 further comprising:
comparing a target address stored in said
hardware I/O control block with said reconnecting
target address.

35   5.   The method of Claim 4 further comprising:

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using said hardware I/O control block upon
said target address and said reconnecting target
address being equal.

5   6.   The method of Claim 4 further comprising:
changing said first portion of said hardware
I/O control block array pointer upon said target
address and said reconnecting target address being
unequal.

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7.   The method of Claim 6 further comprising:
addressing another page in said plurality of
pages of said hardware I/O control block array for
said parallel SCSI host adapter using said first
15   portion of said hardware I/O control block array
pointer in said parallel SCSI host adapter wherein
said another page includes a plurality of storage
sites for hardware I/O control blocks.

20   8.   The method of Claim 7 further comprising:
addressing a hardware I/O control block
stored in said another page using said second
portion of said hardware I/O control block array
pointer in said parallel SCSI host adapter.

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9.   The method of Claim 8 further comprising:
comparing a target address stored in said
hardware I/O control block stored in said another
page with said reconnecting target address.

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10.   The method of Claim 9 further comprising:
using said hardware I/O control block stored
in said another page upon said target address
stored in said hardware I/O control block stored
35   in said another page and said reconnecting target
address being equal.

11.   A method for accessing hardware I/O control
blocks, which are stored in a hardware I/O control
block array, by a parallel SCSI host adapter, said
5   method comprising:
        storing hardware I/O control blocks for
        targets on a SCSI bus in a paged hardware I/O
        control block array; and
        accessing one hardware I/O control block in
10   said paged hardware I/O control block array
        addressed by a hardware I/O control block array
        pointer, wherein said hardware I/O control block
        array pointer includes a page identifier and a
        storage site identifier.
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12.   The method of Claim 11 wherein a first
portion of said paged hardware I/O control block array
pointer includes a page identifier, and said method
further comprises:
20   configuring said page identifier to identify
        a page in said paged hardware I/O control block
        array so that said paged hardware I/O control
        block array pointer addresses one hardware I/O
        control block page in said array.
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13.   The method of Claim 12 further comprising:
        loading a tag from a reconnecting target into
        said storage site identifier of said paged
        hardware I/O control block array pointer.
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14.   The method of Claim 13 further comprising:
        comparing a target address stored in said one
        hardware I/O control block with an address of said
        reconnecting target.
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15.   The method of Claim 14 further comprising:

using said hardware I/O control block upon
said target address and said address of said
reconnecting target being equal.

5   16.   A system comprising:
          a parallel SCSI host adapter comprising;
                a sequencer; and
                a paged hardware I/O control block array
          pointer coupled to said sequencer; and
10   a memory coupled to said paged hardware I/O.
     control block array pointer, and including a paged
     hardware I/O control block array comprising:
                a plurality of pages going from a lowest
          page to a highest page, wherein each of said
15   plurality of pages further comprises:
                     a plurality of hardware I/O control
                block storage sites, wherein a number of
                said hardware I/O control block storage
                sites in said plurality of hardware I/O
20   control block storage sites on at least
                one of said plurality of pages is equal
                to a number of unique tag values that
                can be returned by a tagged queue SCSI
                target reconnecting to said parallel
25   SCSI host adapter.

     17.   The system of Claim 16 wherein said memory is
external to said parallel SCSI host adapter.

30   18.   The system of Claim 16 wherein said memory is
internal to said parallel SCSI host adapter.

     19.   A memory comprising:
          an expanded SCSI control block array for a
35   parallel SCSI host adapter, said expanded SCSI
     control block array comprising:

a plurality of pages going from a lowest page to a highest page, wherein each page further comprises:

    a plurality of SCSI control block

5   storage sites,

    wherein a number of SCSI control block storage sites in said plurality of SCSI control block storage sites on at least one of said plurality of pages is equal to a

10   number of unique tag values that can be returned by a tagged queue SCSI target reconnecting to said parallel SCSI host adapter.

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